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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/578,293

01/25/2007

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2322.75089

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24978 7590 04/14/2009

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EXAMINER

LOFFREDO, JUSTIN E

ART UNIT

PAPER NUMBER

3744

MAIL DATE

DELIVERY MODE

04/14/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/578,293	Applicant(s) FORSTER ET AL.	
	Examiner JUSTIN LOFFREDO	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 25-28,39 and 40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24,29-38 and 41-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/15/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Species A: Figures 1, 2, 3, 4 & 5

Species B: Figures 1, 3, 5 & 6

Species C: Figures 1, 2, 4, 5, & 7

Species D: Figures 1, 5, 6, & 7

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

2. The claims are deemed to correspond to the species listed above in the following manner:

Claims 1-24, 29-38, 41-43: Species A & B

Claims 25-28, 39 & 40: Species C & D

The following claim(s) are generic: Claim 1.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: The existence of an anticipatory reference demonstrating that one or more generic claims lack novelty establishes that the species do not relate to a single general inventive concept. As set forth in MPEP 1850;

The expression "special technical feature" is defined in PCT Rule 13.2 as meaning those technical features that define a contribution which each of the inventions, considered as a whole, makes over the prior art...Whether or not any particular technical feature makes a "contribution" over the prior art, and therefore constitutes a "special technical feature", should be considered with respect to novelty and inventive step. For example, a document discovered in the international search shows that there is a presumption of lack of novelty or inventive step in a main claim, so that there may be no technical relationship left over the prior art among the claimed inventions involving one or more of the same or corresponding special technical features, leaving two or more dependent claims without a single general inventive concept.

In the instant case, the following document (EP 1,249,672 A2) discovered in the international search report shows that there is a presumption of lack of novelty or inventive step in a main claim (i.e. generic claim 1).

3. A telephone call was made to attorney Lawrence Crain on February 18, 2009 to request an oral election to the above restriction requirement, wherein applicant elected Species A, Figures 1-5 drawn to claims 1-24, 29-38 and 41-43. The election was made without traverse. Claims 25-28, 39 and 40 have been withdrawn from consideration.

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4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “at least one inlet opening” (claim 1), “at least one outlet opening” (claim 1), “jacket wall” (claim 1), “filter device” (claim 29), “shell-shaped cover part (claim 33), “shell shaped base part” (claim 33)”slot” (claim 41), and “holding element” (claim 42) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

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of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "32" and "36" have both been used to designate "the closure element". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

7. **Claims 1-24, 29-38 and 41-43** are objected to because of the following informalities:

There is insufficient antecedent basis for the following limitations in the specified claims.

Claim 1 recites the limitations “its second axial end” (line 8), “the first axial end” (lines 8-9), and “the first end” (line 12), which have been interpreted as - -a second axial end- -, - -a first axial end- -, and - -the first end- -, respectively.

Claim 4 recites the limitation “the second end of the jacket wall”, which has been interpreted as - -a second end of the jacket wall- - (lines 4-5).

Claims 12 and 13 recite the limitation “the closure element” (line 3, line 2, respectively), which for the purposes of examination has been interpreted to be “the detachable closure” recited by the applicant throughout the specification.

Claim 24 recites the limitation “the stamped-out parts”, which has been interpreted as - -stamped-out parts- - (line 1).

Claim 31 recites the limitation “the first ends”, which has been interpreted as - -first ends- - (line 4).

Claims 35 and 36 recite the limitation “the rim holes”, which has been interpreted as - -rim holes- - (lines 2 & 3).

Claims 33-36, 38, 41 and 42 recite the limitation “the first collector tube”, which has been interpreted as - -a first collector tube- -.

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The recitation of "the remaining wall thickness" in claim 20, line 3 is unclear in context. It is presumed that the applicants intended to recite - the wall thickness- - for clarity.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. **Claims 1-24, 29-38 and 41-43** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Consider claim 1, wherein applicant claims "the outlet opening being situated in the end area facing the first axial end of the collector, and the collector having at its second axial end, facing away from the first axial end, a removal opening" (lines 7-9) and "the side of the first tube facing away from the first end" (lines 11-12). The recited limitation is unclear due to the recited term "facing", which is an indefinite term in the context of the claim. Either end area of a collector can be said to be facing in a first or second axial end, since no reference has been made to determine otherwise, and so for the purposes of examination the examiner has interpreted the above recited claim term "facing" to be non-limiting.

Consider claims 6, 9, 10, 11, 17, 18, 20, which recite "the first profile piece" (line 2; lines 2-3, lines 1-2, line 2, line 3, line 1, line 1 respectively). Since independent claim 1 recites the limitation "an adapter device or a first profile piece", which is in the

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alternative form, if “an adapter device” is chosen, claims 6, 9, 10, 11, 17, 18 and 20 become indefinite. For the purposes of examination, the examiner has interpreted this limitation in the claims as - -the adapter device or the first profile piece- -.

Consider claim 17. The term "short" (line 3) is a relative term which renders the claim indefinite. The term "short" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The length of the first profile piece relative to the first tube has been rendered indefinite due to the usage of the term “short”, and for the purposes of examination "short" has been interpreted to mean that the adapter device or the first profile piece is - -not as long as the first tube- -.

Consider claim 31, wherein applicant claims “the first ends being received by a first collector tube” (lines 4-5). From the recited limitation it is unclear as to what "the first ends" refer to, i.e. "the first ends" may refer to the fins or the tubes, or to both. For the purposes of examination the examiner has interpreted this limitation to mean - -the first ends of the fins or the tubes- -.

Consider claim 33, wherein applicant claims “a shell-shaped cover part” and “a shell-shaped base part” (line 2). From the recitation, it is unclear as to what designates an object being “shell-shaped” (i.e. is there an outer shell, is there a concave or convex shape, etc...). For the purposes of examination the examiner has interpreted "shell-shaped" to mean any shape capable of enclosing and object or helping to form an enclosure.

Consider claim 42, wherein applicant claims "a ring holder" (line 2). From the recitation, it is unclear as to what designates a holding element being "a ring holder" (i.e. is the holding element made of a ring shaped structure, is the holding element for holding ring shaped objects, etc...). For the purposes of examination the examiner has interpreted this limitation to mean a supporting device capable of holding the collector tube and collector together along their outer surfaces (i.e. holding essentially ring shaped elements).

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. **Claims 1-5 and 7-20** are rejected under 35 U.S.C. 102(b) as being anticipated by Burk (US Patent No. 5,419,141).

Consider claim 1. Burk discloses a collector/dryer unit for a condenser comprising: a collector (17), and a dryer (22) accommodated in exchangeable fashion therein, the collector having a jacket wall (see Figure 2 below) extending around its longitudinal axis formed by a first tube (see Figure 2 below), an opening provided above partition (14) (i.e. at least one inlet opening) and an opening (21) (i.e. at least one outlet opening), the outlet (21) in an end are facing a first axial end (see Figure 1 below) of collector (17), the collector (17) having an opening when screw cover (28) (i.e. a

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detachable closure) is removed (i.e. removal opening at its second axial end) (see Figure 1 below), wherein on a side of the first tube facing away from the first end, common sealing plate (19) (i.e. an adapter device or a first profile piece) is provided on which the detachable closure (28) is held in a closed position (col. 2, L 18-col. 3, L 24; Figs. 1 & 2).

Consider claim 2. Burk discloses that the adapter device or a first profile piece (19) is inserted with an end area into an end of the first tube (see Figure 1 below).

Consider claim 3. Burk discloses that the parts of the condenser (i.e. block (10) of tubes and ribs, collecting tubes (13) and collector (17) are soldered in a furnace to produce a finished structure (i.e. the adapter device or first profile piece is connected immediately to the first tube by soldering) (col. 2, L 41-47).

Consider claims 4 and 5. Burk discloses that the adapter device or first profile piece (19) forms a segment of the jacket wall of the collector (17) (see Figure 1 below), the adapter device or first profile piece (19) having an opening designed as a threaded bore (i.e. extending around the longitudinal axis of collector (17); and having a tube-shaped structure), particularly around the second end of the jacket wall (col. 3, L 3-5; Figs. 1 & 2).

Consider claim 7. Burk discloses that the first tube has an essentially constant wall thickness (Figs. 1 & 2).

Consider claim 8. Burk discloses that the adapter device or the first profile piece (19) is a component different from the first tube (Figs. 1 & 2).

Consider claim 9. Burk discloses that the adapter device or first profile piece (19) has an opening designed as a threaded bore (i.e. the inner surface has a circular construction in the cross-section perpendicular to the longitudinal axis) (col. 3, L 3-5; Figs. 1 & 2).

Consider claim 10. Burk discloses that the inner surface of the adapter device or the first profile piece viewed in cross-section perpendicular to the longitudinal axis has a threaded bore (i.e. different inner circumferential dimensions) along the longitudinal axis (col. 3, L 3-5; Figs. 1 & 2).

Consider claims 11 and 12. Burk discloses that the adapter device or the first profile piece having a space (i.e. a groove) between the detachable closure (28), the groove receiving a sealing ring (27) (i.e. a securing ring detachably situated in the groove); and by means of the securing ring (27) the detachable closure (28) is blocked in the direction facing away from the first end (col. 3, L 5-7; Fig. 1).

Consider claim 13. Burk discloses that the detachable closure (28) is a screw closure in the threading of the adapter device of the first profile piece (19), thereby providing a detachable closure of collector (17) (col. 3, L 3-24; Fig. 1).

Consider claim 14. Burk discloses a sealing ring (27) (i.e. at least one sealing device is provided) (col. 3, L 5-7; Fig. 1).

Consider claim 15. Burk discloses that the adapter device or the first profile piece (19) having a space (i.e. a groove) between the detachable closure (28) (col. 3, L 5-7; Fig. 1).

Consider claim 16. Burk discloses a sealing ring (27) (i.e. at least one O-ring) being held in a space (i.e. a groove of the closure) between the adapter device or the first profile piece (19), and the detachable closure (28); the at least one O-ring (27) achieving a sealing effect partly by contacting an inner surface of detachable closure (28) and the adapter device or the first profile piece (19) (col. 3, L 5-7; Fig. 1).

Consider claim 17. Burk discloses that in the direction of the longitudinal axis of collector (17), the adapter device or the first profile piece (19) is not as long as the first tube (Fig. 1).

Consider claims 18 and 19. Burk discloses that the adapter device or the first profile piece (19) has an opening designed as a threaded bore (i.e. a round construction); and that the wall thickness of the adapter device or the first profile piece (19) is greater than the wall thickness of the first tube (col. 3, L 3-5; Fig. 1).

Consider claim 20. Burk discloses that the adapter device or the first profile piece (19) has a threaded bore and that the wall thickness in the area where the wall thickness is reduced by the threading recesses is greater than the wall thickness of the first tube (col. 3, L 3-5; Fig. 1).

12. **Claims 1, 21-24, 29-32, 34 and 41-43** are rejected under 35 U.S.C. 102(b) as being anticipated by De Keuster et al. (US Patent No. 6,223,556 B1).

Consider claim 1. De Keuster et al. disclose a collector/dryer unit comprising: a receiver (22) (i.e. a collector) and a conventional refrigerant permeable container of drying material or desiccant (68) (i.e. a dryer) in exchangeable fashion within collector

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(22), the collector (22) having a jacket wall (see Figure 3 below) extending around its longitudinal axis formed by a first tube (see Figure 3 below), the collector having an inlet (70) and an outlet (71), the outlet (71) being in the end area facing a first axial end of collector (22), and a port (62) (i.e. a removal opening) at a second axial end facing away from the first axial end, and a plug (64) (i.e. a detachable closure) in the area of the second end, wherein in an embodiment compatible with both embodiments of Figures 3 and 4, on a side of the first tube facing away from the first end a separate piece or fitting (116) (i.e. an adapter device or a first profile piece) is provided on which the detachable closure (64) is held in a closed position (col. 2, L 25-30; col. 3, L 35-40; col. 4, L 8-45; col. 6, L 53-57; col. 7, L 4-7; Figs. 3-8).

Consider claims 21-24. De Keuster et al. disclose that the inlet (70) is in the end area facing the first axial end of collector (22); and that the inlet (70) and outlet (71) incorporate a short section of tube (72) with a peripheral rib (73) (i.e. rim holes protruding outwards / outwardly oriented projections having an annular outer contact surface); wherein at spaces for refrigerant passage are formed (i.e. at least a segment of an overflow passage is formed); wherein the protruding tubes (72) (i.e. stamped-out parts) are provided on the first tube (col. 4, L 16-45; Fig. 3).

Consider claim 29. De Keuster et al. disclose that a filter (66) is introduced and removed from the interior chamber (61) of the collector (22) appropriately (col. 4, L 15-25; Figs. 3 & 4. Note that Fig. 3 is mislabeled in that reference numeral (66) should be directed to the filter within the collector (22) as in Fig. 4).

Consider claim 30. De Keuster et al. disclose that the collector/dryer unit is incorporated with a condenser (20) (i.e. a heat exchanger) for an automotive air conditioning system (col. 2, L 25-30; col. 3, L 35-53; Figs. 1 & 2).

Consider claims 31 and 32. De Keuster et al. disclose that the condenser (20) has a tube/fin block having a plurality of tubes (28) essentially parallel in sections, and a plurality of fins (34) between the tubes (28); first ends of the tubes (28) and fins (34) being received by a rightmost header (24) (i.e. a first collector tube) and second ends of the tubes (28) and fins (34) being received by a leftmost header (24) (i.e. a second collector tube), and the collector (22) being parallel to first collector tube (24); the first collector tube having aligned openings (i.e. at least two openings) to receive the inlet (70) and outlet (71) (i.e. one opening is allocated to the inlet of the collector and the other opening is allocated to the outlet of the collector), thereby forming a segment of an overflow passage (col. 3, L 35-col.4, L 45; Figs. 1-4).

Consider claim 34. De Keuster et al. disclose that the inlet (70) and outlet (71) incorporate a short section of tube (72) with a peripheral rib (73) to form nipples (i.e. rim holes) which can be received in aligned openings (i.e. rim holes protruding inward) of the first collector tube (24) (col. 4, L 15-45; Figs. 3).

Consider claim 41. De Keuster et al. disclose that the collector (22) and first collector tube (24) are help spaced apart by a gap (G) (i.e. a slot) (col. 4, L 58-62; Figs. 3 & 4).

Consider claim 42. De Keuster et al. disclose a saddle surface (77) (i.e. a holding element fashioned as a ring holder) on the surface (75) of the collector (22) and

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conforming to the exterior (78) of first collector tube (24) (i.e. the holding element holds the collector on the first collector tube in the area of the second end of the collector) (col. 4, L 46-65; Figs. 5 & 6).

Consider claim 43. De Keuster et al. disclose that the ring holder (77) surrounds the collector (22) with a section having the shape of a ring (Figs. 5 & 6).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

16. **Claims 11, 12, 15 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Burk (US Patent No. 5,419,141).

Consider claims 11, 15 and 16. Burk discloses the invention as claimed, including using a sealing ring (27) (i.e. a securing ring or an O-ring) (col. 3, L 5-7; Fig. 1), but fails to disclose the adapter device or the first profile piece having at least one groove capable of receiving the securing ring or O-ring. It would have been an obvious matter of design choice to one of ordinary skill in the art, however, to modify the adapter device or first profile piece disclosed by Burk to have a groove capable of holding the securing ring or O-ring in order to provide a barrier or means to hold the securing ring or O-ring in place the ensure a tight and aligned seal when the collector device is assembled.

Consider claim 12. Burk discloses that the securing ring is detachable and that the detachable closure (28) is blocked in the direction facing away from the first end (Fig. 1).

17. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Burk (US Patent No. 5,419,141) in view of Lee et al. (US Pub. No. 2004/0007012 A1).

Consider claim 6. Burk discloses the invention as claimed, but fails to disclose the adapter device or first profile piece being an extruded component. Lee et al. teach

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extruding the body (10) of a receiver-drier (paragraph [0047]), and it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the collector by producing the adapter device or first profile piece disclosed by Burk by extrusion like the body of the receiver-drier as taught by Lee et al. in order to use a reliable method to create a precise cross sectional profile and to form the finished part with a first-rate surface finish.

18. **Claim 33** is rejected under 35 U.S.C. 103(a) as being unpatentable over De Keuster et al. (US Patent No. 6,223,556 B1) in view of Burk (US Patent No. 5,419,141).

Consider claim 33. De Keuster et al. disclose that the first collector tube (24) has an exterior portion (78) above slot (44) (i.e. a shell shaped cover part) and an end plug (40) below slot (44) (i.e. a shell-shaped base part) connected thereto; the cover part and base part forming a jacket wall (see Figure 1 below) of the first collector tube (24) and tube slots (26) provided in both the cover part and base part (col. 3, L 35-53; col. 4, L 46-65; Figs. 1 & 2).

De Keuster et al. fail to disclose the cover part and base part being connected by soldering or welding, but Burk teaches that the parts of the condenser (i.e. block (10) of tubes and ribs, collecting tubes (13) and collector (17) are soldered in a furnace to produce a finished structure (col. 2, L 40-50), and it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the cover part and base part of the condenser tube disclosed by De Keuster et al. to be soldered together as taught by Burk in order to form a reliable and durable bond between the parts while forming a

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joint that can be easily reworked or repaired, using a simple and relatively inexpensive method that requires a low amount of energy.

19. **Claims 35-38** are rejected under 35 U.S.C. 103(a) as being unpatentable over De Keuster et al. (US Patent No. 6,223,556 B1) in view of Lee et al. (US Pub. No. 2004/0007012 A1).

Consider claims 35 and 38. Refer to the rejection of claim 34. De Keuster et al. disclose that the rim holes of the first collector tube (24) engage in telescoping fashion with the rim holes of the collector (22) (Figs. 3 & 4), but De Keuster et al. fail to disclose the rim holes of the first collector tube being in the rim holes of the collector; or the first collector tube having outwardly directed projections. Lee et al. teach a header pipe (2) (i.e. a first collector tube) having an input pipe (4) and an output pipe (5) (i.e. rim holes / outwardly directed projections) being positioning within inlet (11) and outlet (12) (i.e. rim holes) of body (10) of the receiver-drier (9) (i.e. the collector) (paragraphs [0037]-[0040]; Fig. 5), and it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the connection between the collector tube and collector rim holes disclosed by De Keuster et al. so that the rim holes of the first collector tube are in the rim holes of the collector as taught by Lee et al. in order to establish a reliable connection and form a refrigerant flow path with a small likelihood of leakage during operation of the system.

Consider claims 36 and 37. De Keuster et al. disclose inlet (70) and outlet (71) incorporating a short section of tube (72) with a peripheral rib (73) to form nipples (i.e.

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outwardly projecting rim holes) one collector (22) (col. 4, L 15-45; Figs. 3), but fail to disclose the rim holes abutting outwardly projecting rim holes of a first collector tube, or the end surfaces of the abutting rim holes being either radially outwardly sheathed or radially inwardly sheathed by a common sleeve in contact therewith.

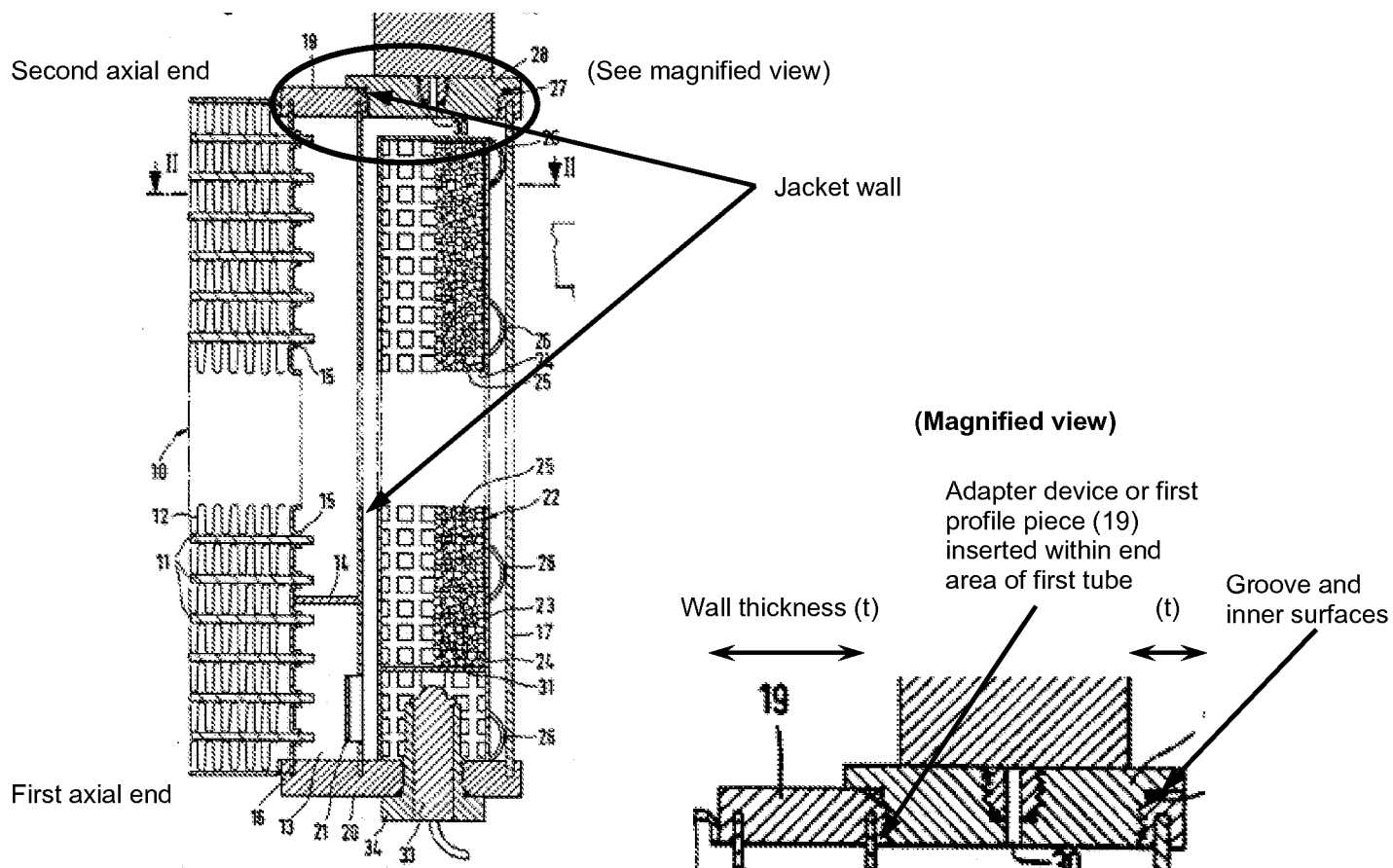
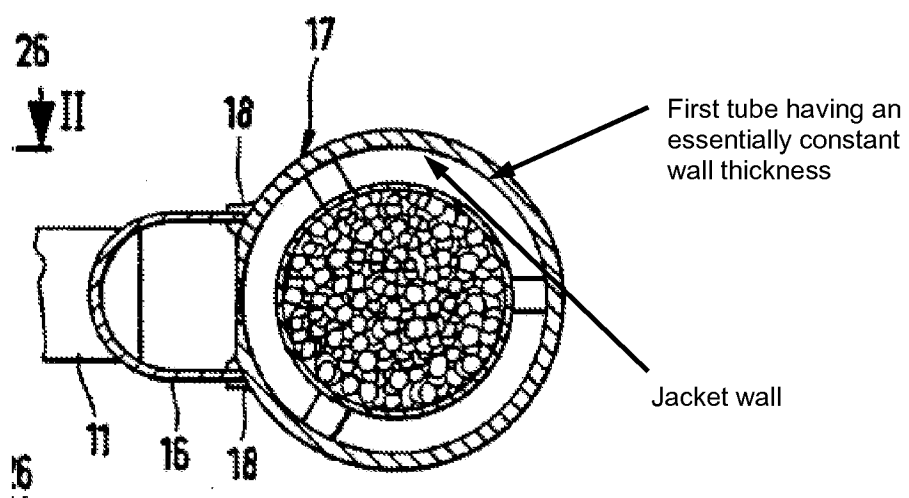
Lee et al. disclose a header pipe (2) (i.e. a first collector tube) having an input pipe (4) and an output pipe (5) (i.e. outwardly projecting rim holes) (paragraphs [0037]-[0040]; Fig. 5), and it would have been obvious to one of ordinary skill in the art to modify the collector/dryer unit disclosed by De Keuster et al. so that the outwardly projecting rim holes of the first collector tube as taught by Lee et al. abut the outwardly projecting rim holes of the collector, and the end surfaces of the abutting rim holes being either radially outwardly sheathed or radially inwardly sheathed by a common sleeve in contact therewith in order to establish a reliable connection with minimal leakage, and to form a refrigerant flow path for operation of the air conditioning unit. Providing a sheath over two contacting units containing a fluid flowing therein is old and well known in the art, and would have been a common mechanical expedient to an ordinarily skilled artisan in order to prevent leakage at the abutment.

20. It should be noted that with regard to the terms "preferably" (see for example claim 23, line 2; claim 29, line 2; claim 36, line 4; claim 38, line 3) and "if necessary" (claim 42, line 3), the examiner has interpreted that the inclusion of such terms indicate a subsequent limitation that is not required by the claim since such a limitation is preferable, but not required.

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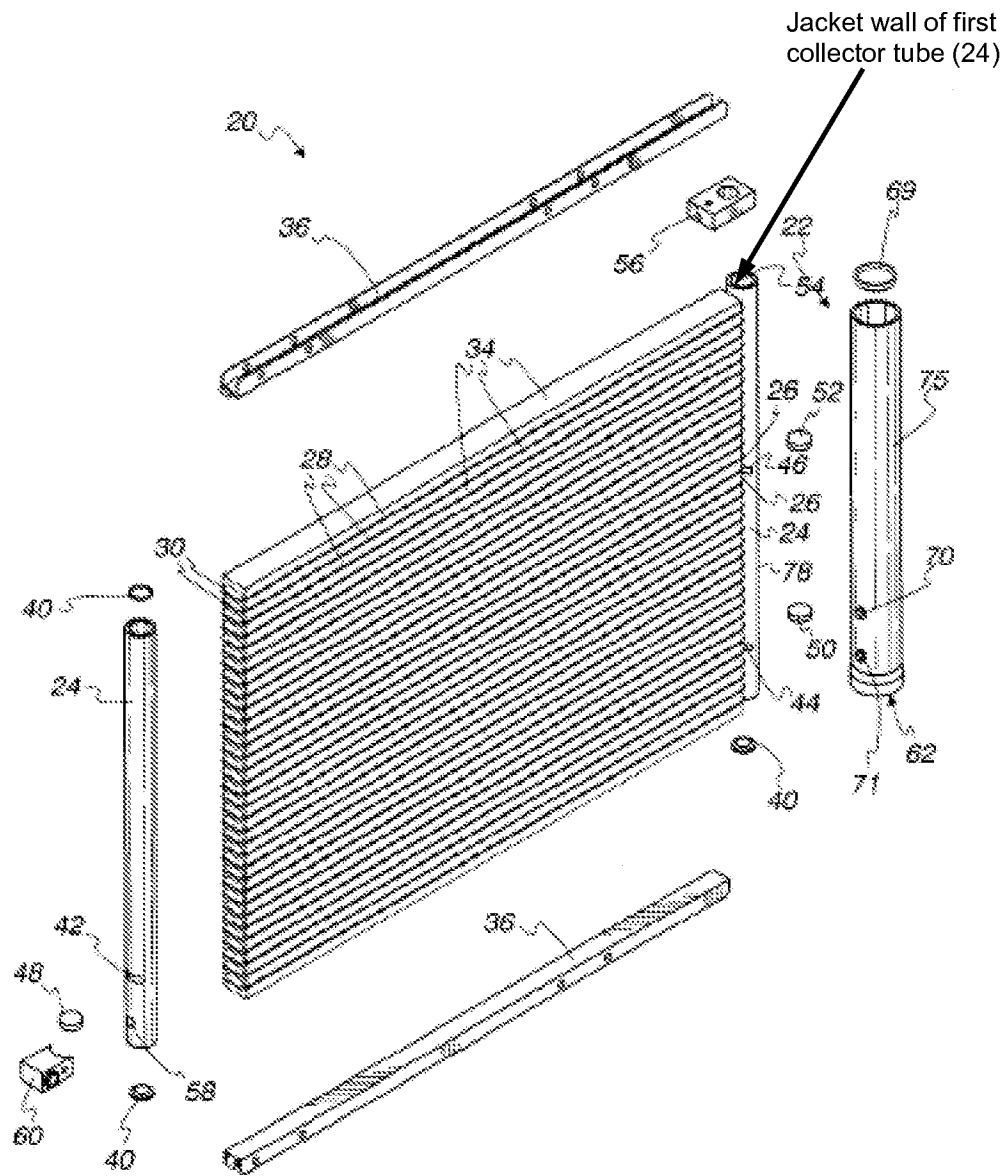
21. There are numerous examples of functional language recited in apparatus claims 1-24, 29-37 and 41-43 such as: “a removal opening *for exchanging the dryer*” (claim 1, line 9); “at least one groove *for receiving a securing ring*” (claim 11, lines 2-3); and “at least one sealing device *for sealing the detachably held closure against the first profile piece of adapter device, or against the first tube*” (claim 14, lines 3-4). Applicant should note that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. Since the prior art structure in the instant case is capable of performing the intended use, it meets the claim.

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Burk – Figure. 1**Burk – Figure. 2**

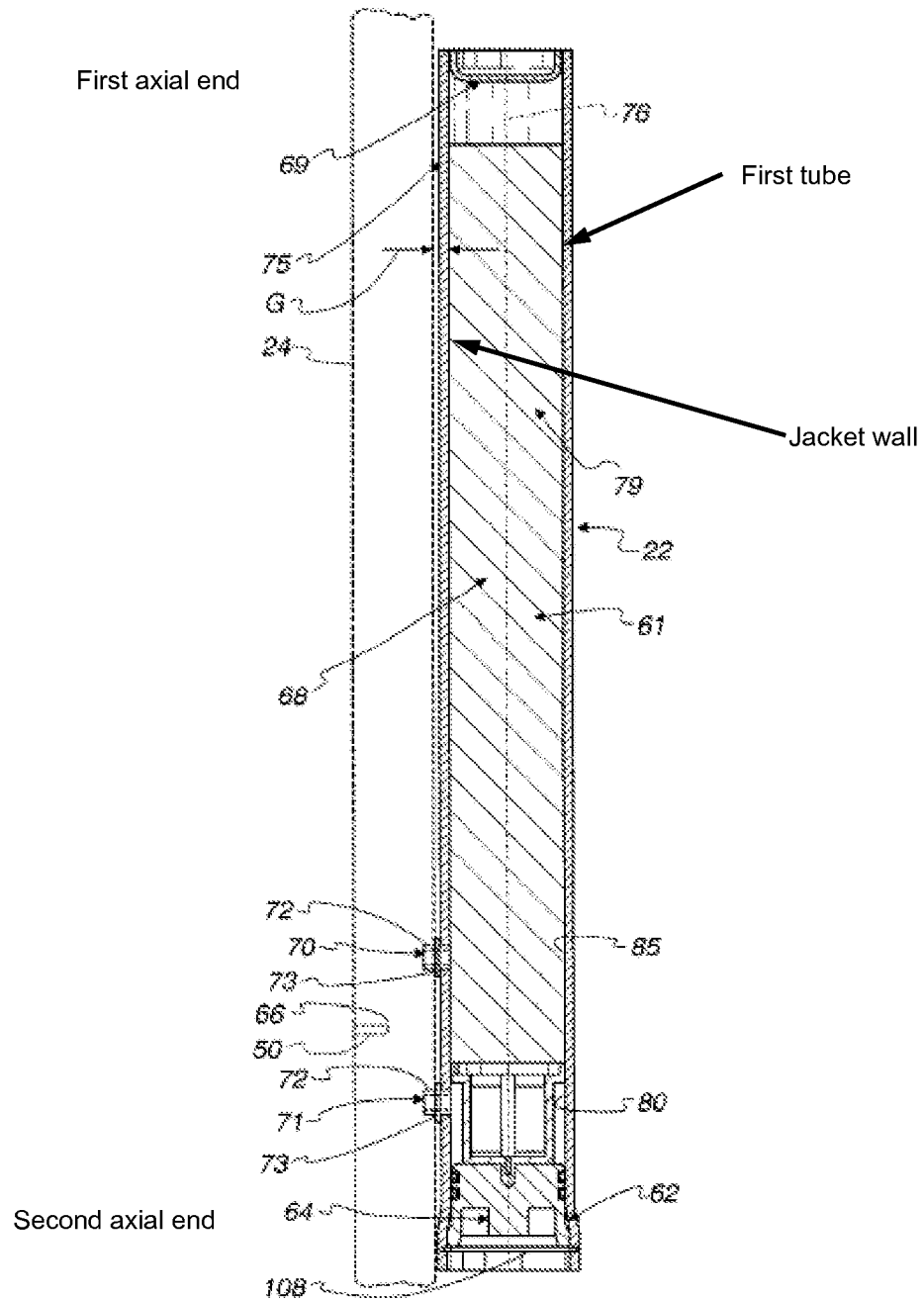
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De Keuster – Figure 1



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De Keuster – Figure 3



Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kaspar et al. (US Patent No. 6,349,562 B1) disclose a closure element for a collector/dryer unit of an air conditioner; Kamishima et al. (US Pub. No. 2003/0213583 A1) disclose a collector/dryer unit for a heat exchanger; and Whitlow et al. (US Patent No. 6,622,517 B1) disclose a condenser for a motor vehicle having a collector/dryer unit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN LOFFREDO whose telephone number is (571) 270-7114. The examiner can normally be reached on M - F 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler & Frantz Jules can be reached on (571) 272-4834 & (571) 272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Justin Loffredo
April 13, 2009

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Unit 3744